

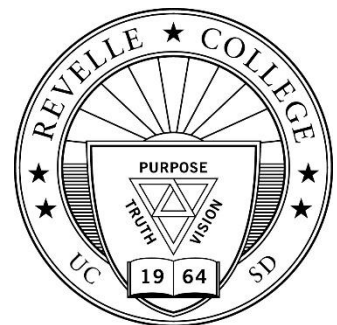
# Revelle Foundations



*Revelle College, circa 1964*

A collection of interviews with founding  
faculty, students and staff of Revelle College

*Compiled and edited by Mel Green and Kristin Luciani*



**Note from the Editor**

The 2014-15 academic year marks the 50th Anniversary of Revelle College. Reflecting upon this milestone, we set out to gain an understanding of the philosophy behind the college's notorious general education requirements by interviewing some of the founding faculty, staff and charter students. Along the way, we gleaned insight of the personalities that shaped the campus, what it was like to be at UC San Diego in its earliest days, and the enduring spirit that defines the Revelle College community.

The interviews collected here took place in the spring of 2015 with the help of current Revelle undergraduates and staff members. The interviews have been lightly edited for clarity and space.

--Mel Green

## An Interview with Roger Revelle



Shortly before classes began for UC San Diego's first undergraduates, *The San Diego Union* ran a two-page article about the birth of the new University of California campus, which included an interview with Roger Revelle. Following is an excerpt from the interview, which appeared in the Sunday morning paper on Sept. 13, 1964.

*Has this growing pattern happened before?*

It's almost a rule that a university evolves slowly; most universities have grown very slowly over many years. To start from scratch and build one in a hurry is quite a different story. There have only been two or three examples of this in the United States. One was the University of Chicago, and this was done essentially by one man, William Rainey Harvey. I studied up on William Rainey Harvey as much as I could. He had one secret weapon...he had

Rockefeller money in back of him...he offered twice the salaries of any other university in the country. We never offered a man here more than he was getting where he was.

*But couldn't you offer him the opportunity and money for research?*

We didn't even do that. We didn't provide money. The men and women we hired brought the money with them.

*Explain that, please...*

The essence of the modern university in the United States today in terms of research and support is that a good man can go anywhere in the country and take his support with him. So we didn't have to provide the financial support for research. All we provided was to say that we would get other good people. What we said was, "Choose your own" and "Bring the good guys that you've been dreaming about working with." Now you couldn't do this if you were starting as a typical undergraduate school. You have to have somebody in every field. We started as a graduate school and said we'll build up one department at a time.

*Is this all it took?*

We also decided on a different general plan of organization. We're going to have a cluster of little universities instead of building up to a great mass, one great huge university, such as at Berkeley. We're going to have a series of colleges which will be little universities having both graduate and undergraduate students...colleges where there'll be research as well as teaching. This isn't like the Cambridge or Oxford system where you have undergraduate teaching in the colleges and research outside of them altogether. I think our plan is the right way to do it and I think their plan is the wrong way to do it.

*You started out here by building a top-notch scientific faculty. Why did you start in this area?*

This was the natural thing to do...we started out with the thing that was easiest. We said we wanted to get first rate people here. It was easier to get first rate people to begin with in the sciences because we already had a great scientific institution in Scripps Institution. We understood scientists because we know what they're like. Now we are faced with a more difficult problem of getting social scientists, and humanists; philosophers, linguists, writers, critics, people who are interested in all of these other parts of life, and we're learning the hard way how to do this. But building up a science faculty here gave the place a reality which was very important. It is obviously a great place. It is not a fly-by-night or mediocre institution. So it was easier for us to at least talk to great historians, and great philosophers, and great critics, and to give them some sense that there is an opportunity here.

*There's the impression that you're trying to merge the humanities and the sciences.*

I think this is a kind of a key spirit of this campus. Most people you talk to—including my own children, my daughters—regard science as something that they can't really be involved in. To them it's not really part of human life. To them human life is art and literature and babies and music and conversation; it's the feeling of a sense of moral values, a sense of religious faith, a sense of working for your community, of being a good citizen. None of these things, to them, involve science. But I think they practically all involve science. What we're going to try to do is teach everybody enough science so they understand it. Not enough science, necessarily, so they can solve a differential equation, or so they can conduct an experiment. But enough science so they can understand how life hinges on and can be affected by the sciences. What we want to do is to take science out of witch doctor's role—this role that science on the one hand is a useful servant to produce new gadgets, and on the other hand is an evil genius who produces atom bombs. We want to try and make people feel scientists are just like everyone else. The only way they are different from everyone else is that they are interested in knowledge.

*Now, finally, about the future: What advice do you leave for UCSD?*

One bit of advice that they don't need but which I could give them anyhow is: never take a second rate man. Only take first rate people. The only thing that can happen to a university is that it gets worse. There is a kind of "Gresham's Law" Of Faculty...bad faculty drives out good. So I say, always try to get first rate people. And the second bit of advice would be: try and be unique...not just unique for the sake of being different, but unique for the sake of experimentation...of trying to get better. Professors generally are considered wild-eyed liberals, but when it comes to running a university or running a college, they just couldn't be more conservative. They always want to do things the way they've always done them. And what I'd like to see them do is be experimental, to do things in new ways, to try new things.

## **Revelle College: The Educational Philosophy**

*From the 1968 UC San Diego Catalog:*

With the establishment of Revelle College, the first college on the UCSD campus, the faculty was given a rare opportunity to shape an undergraduate curriculum that would, insofar as any educational program can, prepare its students for the modern world. From the outset of planning the curriculum, the faculty asked: What sort of knowledge must students have if they are to be liberally educated? In what areas? To what depth? How specialized must that education be in the undergraduate years?

The educational philosophy of Revelle College was developed in response to such fundamental questions. Its undergraduate program is based on the assumption that a student who is granted the Bachelor of Arts degree will have attained:

1. An acceptable level of general education in mathematics, foreign language, the physical, biological and social sciences, the fine arts and the humanities.
2. Pre-professional competence in one academic discipline.
3. An understanding of an academic area outside his major field.

To this end, a lower-division curriculum has been established which should enable the student to acquire an understanding of the fundamental problems, methods and powers of the humanities and the arts, the social and behavioral sciences, mathematics and the natural sciences.

### **First Chancellor, UC San Diego**

Herbert York

### **First Provost, Revelle College**

Edward D. Goldberg

### **Founding Department Chairs**

Aeronautical and Mechanical Engineering Sciences — Stanford Sol Penner

Biology — David Bonner

Chemistry — James Arnold

Linguistics — Leonard Newmark

Literature — Roy Harvey Pearce

Mathematics — Stephen Warschawski

Philosophy — Richard Popkin

Physics — Keith Brueckner

Psychology — George Mandler

**Ernie Mort**  
Dean Emeritus

Ernie Mort came to UC San Diego from Ohio State University in the fall of 1966. Given his background in counseling and student ministry, his original idea was to start a campus ministry association at the new UC. When Ernie met with the provost of Revelle College, and later Chancellor John Galbraith, he was asked to help start a student counseling center. Later, Ernie was asked to help oversee the residential life program, which at the time was run by a faculty member with graduate students as resident advisors (RAs.) Ernie agreed to help for six months. Six months turned into some 25 years serving as assistant dean and then resident dean for the college. In 1994, Ernie retired but maintained his connections to the campus and Revelle College, volunteering his time and providing philanthropic support to student scholarships and programs.

Here Ernie shares his memories of student life at the beginning of Revelle College, and some of the traditions that continue today. As told to Kristin Luciani, '09:

*What brought you to UC San Diego? What were your first impressions of the campus?*

I came to UC San Diego in the fall of 1966—September 10 to be exact. I was at Ohio State University, where I served as director of the Student Center of Religion. I was there for six years. I heard about the new campus getting started in San Diego around 1965. A few of the faculty members I knew at Ohio State had visited the campus. I called some of my colleagues at the other UC's—Berkeley, Los Angeles and Santa Barbara—to learn about the new San Diego campus. I drove out there with a friend with the idea that I could start a campus ministry association. I drove up to the campus on a foggy evening—and I had no idea how big the campus was—and I could only make out a few buildings: there was the cafeteria, the library, what is now known as York Hall and Urey Hall, and the plaza. I thought: what a small campus this is!

*What was student life like in the early days of Revelle College?*

When I started as assistant dean, the dorms were separated into men's and women's residencies. Blake, Meteor and Galbraith housed female students, and there was an 11 p.m. curfew for visiting other students' suites. The students were irritated with the policy, and it caused some unnecessary trouble. It also seemed out of step with the times; other major public universities already had co-ed dorms. I helped oversee the transition to co-ed residence halls. The suite system made the change simple; students still had a lot of privacy with the suites. The change made a huge difference in student life. It was very positive.

During that period, the college began to see protests, organized by the Students for Democratic Society. They were very calm compared to what Berkeley saw in 1955. The students at Berkeley were protesting for free speech. At the time, public universities didn't allow students to gather and talk about politics or religion in public spaces. After the Berkeley protest, the Regents created free speech areas that applied to spaces like Sproul Plaza at Berkeley and later, Revelle Plaza at UC San Diego. Demonstrations were required to conform to the "time, place, manner" guidelines. They could only take place between 11:30

a.m. and 1:30 p.m. and only in the designated free speech areas. The protests at Revelle followed the time, place, manner rules and both the undergraduate and graduate students were careful about not going overboard...there were concerns about disrupting classes and research if it went all day.

Revelle students weren't just protesting free speech. At that time, you couldn't vote until you were 21....that was part of the Vietnam protests. I think our students may have felt a little guilty—the men that were drafted right out of high school tended to be lower class minorities who couldn't afford to go to college. Plus, our students knew that after they graduated they would get another draft letter and would either have to defer again, or leave for Canada. And many of them did leave. Herbert Marcuse was one of the professors who came out to the protests. He taught in the humanities series and was a very popular professor among the students. He was controversial though—he had written a book on Karl Marx and had his criticisms of capitalism...although many people at that time did. Angela Davis was one of his grad students. I give a lot of credit to the students who participated in the protests. While some of the demonstrations did get out of hand, for the most part they were very reasonable.

Around 1970, at the height of the protests, Provost Saltman suggested we invite parents to orientation so they could see what the campus was like (as opposed to what they saw on television and in the newspapers about protests at the UCs.) This was highly unusual at the time. In 1972 we had our first parent orientation program and 180 parents attended. They stayed for a week in the residence halls. I think it really helped get the college known. Parents loved it. It helped in the recruitment of new students, because parents would tell their friends about the experience they had at Revelle College.

Later, the students began to be more career conscious, as they are today. Student Affairs started focusing on helping students learn to grow—we encouraged students to serve on college committees and develop leadership skills. We started holding the annual Revelle College Leadership Banquet each May.

*What are your thoughts on the Revelle curriculum?*

It's a great program. Most of our students come in with good math and science grades and SAT scores. It's the humanities series that is the challenge. They have to write a lot of papers and read many difficult books. But the alumni look back and think it was the best thing—they say that it taught them how to write, and they are grateful!

The foreign language requirement was also challenging. It required students to be proficient in a foreign language. It's been modified, but it's still a very important part of the Revelle curriculum.

Our academic advisors are another strength of the college system. To have advisors right in the college, who can guide students through general education requirements, graduation requirements and more, was another piece that made this university unique. Most other institutions have academic advisors at the department level.

## **S. Jonathan Singer**

Department of Biology (now the Division of Biological Sciences)

Jon Singer came to UC San Diego in 1961 from the Department of Chemistry at Yale University. After doing a post-doctoral fellowship at Caltech under professor Linus, Singer spent 10 years at Yale, where he rose to the rank of full professor. He was a friend and colleague of professor David Bonner at Yale, and he was Bonner's first professorial appointment to the Department of Biology at UC San Diego.

Here Singer describes the beginnings of the Department of Biology and associated Revelle College undergraduate courses. As told to Mel Green:

*Why did you come to UC San Diego?*

I admired David Bonner and regarded him as a man with great scientific vision. With Bonner as chair of the Department of Biology, this would definitely be a new kind of biology, with chemistry as its basis. Although I knew nothing about biology, I felt confident that I could be successful in Bonner's department by using my expertise in chemistry to solve biological problems. I had also heard of Roger Revelle's respect for David Bonner's "real qualities," and this fit with my own admiration for Bonner, who was thought of as "too nutty" for stodgy Yale.

Another reason for leaving Yale and the East Coast had to do with my wife, Ruth. Her asthmatic condition was considerably lessened while we were in California for my year at Caltech, and Ruth was strongly in favor of returning when the opportunity arose.

*Why was a single Department of Biology established at UC San Diego, when other universities had several departments housing the different areas of biological study?*

All other universities had many departments within the general area of biology, such as botany, genetics, ecology, microbiology, etc. It was David Bonner's vision to create one Department of Biology that would encompass all of these fields. Bonner believed as early as 1960 that every area in biology was going to be revolutionized by chemistry.

*Why were all students required to take the same science courses?*

Surprisingly, I believe the answer to this question stems from professor Roy Harvey Pearce, the founding chair of the Department of Literature. Unlike almost all other humanities professors, Pearce believed that we were living in a period of great and rapid scientific advancement, and we should therefore expect all well-educated people to become knowledgeable about the major fields of science: physics, chemistry and biology. This meant teaching these subjects without watering them down for the non-science majors. There would be a five-quarter science sequence for all Revelle students: two quarters of physics, two quarters of chemistry and one of biology. In addition, three quarters of calculus was also required, starting in the fall of the first year and prior to physics.

It was primarily due to this "radical" opinion that the search committee, which comprised only of scientists (myself, Bonner and Martin Kamen) hired Pearce as the first chair of the Department of



Literature. None of the other professors of literature that were interviewed held such a visionary opinion. This fit in well with the views of Roger Revelle for creating a great university.



Erik Jepsen/UC San Diego Publications

## **Melvin Green**

Department of Biology (now the Division of Biological Sciences)

Melvin Green received a B.S. in chemistry in 1958 from the University of Pittsburgh and a Ph.D. in biochemistry from the University of Illinois in 1962. After one year as a post-doctoral fellow at Caltech, he became the fifth member of the Department of Biology at UC San Diego in 1963.

Following is Mel's own portrait of his early days at UC San Diego.

### *Why did you come to UC San Diego?*

While attending a conference at Lake Arrowhead in January of 1963, I met three of the four members of the Department of Biology: David Bonner, Stan Mills and Jack DeMoss. They told me about their new university and their interest in hiring my Ph.D. advisor, Ben Hall. I informed them that Ben had recently accepted a position at the University of Washington, but they seemed quite confident that they would persuade him to come to La Jolla. I assured them that, knowing Ben so well, I knew that he never changed his mind. However, I also knew the next best person they could hire, and that was me. I would never have been so bold as to say such a thing had they not seemed like such fun-loving, down-to-earth, my-type-of-guys—treating me to more drinks than I could handle.

I had seen La Jolla once before this meeting. Returning to Pasadena from a camping trip to Baja, Mexico in December of 1962, we happened to stop at the beach by Scripps Institution of Oceanography. I had never heard of Scripps Oceanography, and wondered who the lucky people on the beach were, and it seemed like a paradise in some lost land. I never imagined that in less than one month, I would be offered a faculty position at that very place.

Coming to a brand new university located in paradise was a very exciting idea. I would be involved in every phase of its development: the planning of curriculum, the hiring of faculty colleagues, the design of my laboratory in a new building, etc. And best of all, there was David Bonner, the chair of the Department of Biology. Who could not be captivated by Dave's exuberant personality and scientific wisdom? He realized long before most that a molecular approach to biology was what was needed in every area of biology, be it ecology, development, genetics, botany, etc. Therefore, UC San Diego would have just one Department of Biology, unlike all the other universities with their separate departments. Bonner envisioned molecular biology having a major impact on advances in medicine. He thus had his department located across the street from the School of Medicine, which was built several years later, thereby promoting close scientific collaboration.

As a young molecular biologist, I of course loved Bonner's plan. What other department chair would say to his young colleague, "rules were made to be broken?" Unfortunately, David Bonner died of Hodgkin's disease in December of 1964. His far-reaching vision lives on.

*What was it like in La Jolla and San Diego in 1963?*

The first campus buildings, Bonner, Urey and Mayer halls, were completed late in 1964. Before that, all of the faculty members were located at Scripps Institution of Oceanography. We would have lunch together with staff and graduate students on the cliff overlooking the Pacific Ocean. We were one happy family.

The population of San Diego was about 550,000, with the city's reputation that of being a Navy town. There was no Highway 5 yet—only Gilman Drive as Highway 101 running north-south—no La Jolla Village or University Town Center malls, no student center and nothing for the graduate students to do but take classes and study. The closest restaurants were in the La Jolla village, which had no traffic and no parking meters. The village rolled up its carpets by 9 p.m., but by then it was time to go back to the lab anyway. The developing campus in 1965, covered by eucalyptus trees and desert brush, felt like a small island in the Pacific, just waiting to be discovered.



**Stanley Chodorow**  
Department of History

Stanley Chodorow received his Ph.D. in history from Cornell University in 1968 at the age of 25. At the request of professor Armin Rapaport, the founding chair of the UC San Diego Department of History, Chodorow became a member of the Revelle College faculty at this young age. After teaching Medieval History and some advanced courses for two years, he began teaching Humanities 1, the first of six courses in the humanities sequence that was required of all Revelle students.

Here Chodorow describes what it was like to be one of the first faculty members at the new University of California campus, and how a strong liberal arts education was built into the general education requirements. As told to Mel Green:

*Why did you come to UC San Diego rather than a more established institution?*

I had two offers that year: UC San Diego and Washington State University. When I talked to WSU about their library, they changed the subject to the hunting and fishing...just what a New York boy wanted to hear about. The UC San Diego department, like all of the campus's departments, had a strong cadre of senior faculty, so that one could see leadership and the institution looked more established that it was. Roger Revelle had made a deal with the University of California Office of the President that permitted us to front-load senior faculty, with the idea that the distribution of faculty would normalize in time, which it did.

I also thought that joining a new institution would be exciting, although I had no idea what that meant. What it meant was that because the faculty was small, we needed to involve all hands, including the "young-uns." I found myself serving on important committees that were building new programs. The mentors were great (Herb Stern, Warren Butler, Avrum Stroll, Norman Kroll, Roger Revelle, Herb York) and we learned what a university was very early in our careers. But I didn't know about that until after I arrived.

*Who was responsible for the humanities sequence being a Revelle requirement?*

The professors most responsible for the humanities sequence being required of all Revelle students were Roy Harvey Pearce, Avrum Stroll, Richard Popkin and Gabriel Jackson. They shared the vision of a strong general education for all students. Also, a high percentage of the senior faculty members in the sciences had been educated at small liberal arts colleges. Those founders had a strong commitment to a liberal arts education, which included the sciences as well as the humanities, social sciences and arts.

*Why are there so many general education requirements at Revelle College?*

The founders of Revelle wanted to provide a meaningful general education, and this had to include science (physics, chemistry and biology,) mathematics (calculus,) humanities (a six-quarter sequence,) a foreign language and a course in the arts. We did not want to educate bench scientists and engineers. A Revelle t-shirt summed up the Revelle philosophy as, "Revellies do it because it's required."

*Were there writing requirements for Revelle students?*

A writing test was administered prior to taking Humanities 1. Students who passed this test were not required to do any writing until the second quarter of the sequence, and then throughout the remainder of the six-quarter sequence. For those who failed the test, a writing course called Subject A was required. Graduate student teaching assistants were responsible for grading all of the writing. These students received thorough instruction from the faculty responsible for the course.

*What were the early Revelle students like?*

The early Revelle students were pioneers. They were risk-takers and had a lot of self-confidence. They had to be, because they had little idea as to what they were getting into by coming to UC San Diego.



**Leonard Newmark**  
Department of Linguistics

Leonard Newmark received his Ph.D. in linguistics from Indiana University and soon after joined the faculty of Ohio State University, where he remained for eight years. While there, he became friends with professor Roy Harvey Pearce, who became the founding chair of the Department of Literature at UC San Diego. In 1963, at the request of Pearce, Newmark joined the UC San Diego faculty as founding chair of the Department of Linguistics. Professor Edward D. Goldberg, from Scripps Institution of Oceanography, was the provost of Revelle College at the time.

Here, Newmark recalls the foreign language part of the general education requirements at Revelle College. As told to Mel Green:

*What was the Linguistics Language Program at UC San Diego?*

Rather than having separate departments for languages such as French, Spanish, German and Russian—as in most universities—UC San Diego created a Department of Linguistics. While taking a course in linguistics, students also learned a foreign language, primarily in language labs with tape recordings. I developed the Linguistics Language Program, which introduced an innovative way of teaching languages and was a forerunner to some of the kinds of communicative approaches that are widespread today. My experience for this approach came from working at the Foreign Language Institute in Washington, D.C. where I taught Foreign Service officers and avoided the draft.

*What was the Revelle language requirement?*

Whereas many other universities had a foreign language requirement, none was as demanding as that of Revelle. Two examinations had to be passed: a written exam by the end of the second year and an oral exam before graduation. The oral consisted of a 30-minute conversation with a native speaker. A choice of four languages was offered: Spanish, French, German and Russian. Failure to pass the oral meant a delay in time of graduation.

Needless to say, the language requirement was not popular with many Revellians. However, it had many strong supporters among the very influential science faculty, including Roger Revelle, Keith Brueckner, Harold Urey, Jon Singer, David Bonner, Martin Kamen, and Herbert York. They believed that speaking a foreign language was very useful in their travels.

**Charles Perrin**  
Department of Chemistry

Charles Perrin came to UC San Diego for an interview in February of 1963, while he was still a graduate student in chemistry at Harvard University. He was offered an assistant professorship but was advised to take a post-doctoral research position at UC Berkeley until the laboratories at UC San Diego were opened. He therefore arrived at UC San Diego in January of 1964. His lab and office were in what became known as Mayer Hall, but the first classes, taught only to graduate students, were in classrooms at Scripps Institution of Oceanography. The undergraduates did not arrive until September of 1964.

Here, Perrin describes his first impressions of UC San Diego, La Jolla and the rigorous general education requirements of Revelle College.

*Why did you come to UC San Diego?*

Coming from Boston in February to lunch above the beach at Scripps Institution of Oceanography was very impressive. But what most impressed me and most attracted me was the quality of the faculty members here. They were people I knew of but had not previously met, people like Joe Mayer, Harold Urey, Martin Kamen, Bruno Zimm and Stanley Miller. They were eminent researchers, internationally renowned, who had left secure positions elsewhere to come to La Jolla to create a new university. And I could be a part of that! I could embark on my own research, and I could put into practice ideas that I had had about teaching and curriculum.

After Boston and Berkeley, La Jolla was a backwater. It was said to be a place to which retired people came...to visit their parents. The local deli served sandwiches of corned beef round, on white bread, with *mayonnaise*. My wife and I were questioned by police for walking on the beach at 10 p.m. But we did have a one-bedroom apartment two blocks from the beach, for \$120 per month.

*How did the Revelle curriculum come about?*

Much of the planning of the curriculum must have occurred before I arrived, because it had to be ready for the incoming students. I don't remember who devised it, but I do remember being excited by the founders' vision of a rigorous curriculum. They created the curriculum that they wished that they had had, and I wished that I had had it too.

The five-course sequence in natural science was to begin in winter quarter, building on a quarter of calculus that would continue for a full year, for every student. The first two quarters of natural science were physics, followed by two quarters of chemistry that developed from physics, and then a quarter of molecular biology, built upon the previous quarters. I was part of a group of faculty who visited the local community colleges to advise their faculty on preparing their students for UC San Diego. They were not pleased that we discouraged them from teaching their students chemistry and, most galling to them, any biology.

Eventually, this plan for a sequence in natural science collided with reality. Although many students thrived on such a plan, many more were incapable of handling calculus-based physics. Besides, so regimented a sequence was incompatible with the schedule of any student who was forced to drop a course, owing to illness or inability to keep up. It became necessary to offer alternative courses to satisfy the requirement, especially because departments wanted to offer introductory physics, chemistry and biology courses that were not limited to Revelle students or the Revelle general education requirements. Now there are many courses that will satisfy the science requirement, but the mathematics requirement remains a year of calculus, which has only recently been reduced to two quarters of calculus, plus a third quarter of probability and statistics that have calculus as a prerequisite. In my opinion, calculus is essential for all practicing scientists, but it is not the part of mathematics that every educated person should know. Therefore, I hope that the requirement will be relaxed to allow other options, such as probability and statistics without calculus, logic, computer programming and algorithmic reasoning, and abstract algebra or number theory. But a firm understanding of mathematics and science is essential for any educated person, and it is discouraging how many politicians today are so ignorant of these topics.

At the outset, the rigorous science requirement had the full support of the few non-scientists among the founders, and the rigorous humanities, fine arts and language requirements had the full support of the scientists. I agree that a familiarity with the history of humanity and of the important ideas and works that humankind has developed and created is essential. I was especially impressed by the requirement to demonstrate proficiency in speaking a foreign language. The Department of Linguistics had native speakers and tapes in a vast choice of languages, which were very effective in teaching a spoken language. I wish that I had had the opportunity of such a program. Unfortunately, when I went to college, an educated person was required only to read a foreign language. It was not necessary to speak one. Now, in an age of globalization, it is even more important to communicate in foreign languages and to understand other cultures.

#### *What made UC San Diego so successful?*

Of course, the quality of the faculty is responsible for our successes at teaching and research, and excellent faculty and students continue to attract additional excellent faculty and students. But much of the success can be attributed to Roger Revelle's plan for UC San Diego. Over opposition from the San Diego business community, which wanted to locate the campus near Balboa Park, Revelle fought to establish the campus in La Jolla. Proximity to Scripps Institution of Oceanography and to its library was key to enabling the scientific research effort of the new general campus. Also, the plan was to begin with only graduate students and post-doctoral researchers, so that teaching assistants would be available when the undergraduates arrived. Revelle's innovation was the college system, at a time when students at Berkeley and UCLA felt alienated by the impersonality of such large campuses. The college system would give undergraduates the benefit of a complete research university while giving them an allegiance to a smaller group. Even now—when courses in a student's major are independent of the college, and there is no necessity for students to dine in their own college and thereby interact with students pursuing other majors—each college's distinctive general education requirements give students a common complaint and a common sense of accomplishment.



### **David Miller**

Department of Aeronautical and Mechanical Engineering Sciences (now the Department of Mechanical and Aerospace Engineering)

David Miller obtained his B.S. in chemical engineering from UC Berkeley and his Ph.D. in chemical engineering from Princeton University before joining the faculty at UC San Diego in 1966. He has served as chair of AMES, as acting dean of Engineering and as associate dean of Engineering. In 1997 he was appointed as associate vice chancellor - Academic Planning and Resources, and he served for two years as acting senior vice-chancellor of Academic Affairs.

Miller describes how the AMES department began and how it has continually evolved over time. As told to current Revelle undergraduate Young Sung Moon:

*Why did you come to UC San Diego?*

My mentor described the then budding UC San Diego campus as brimming with potential opportunities. Furthermore, although UC San Diego did not have an engineering department at the time, an interdisciplinary engineering science program was recently started by the Department of Aeronautical and Mechanical Engineering Sciences (AMES.) This area fit in well with my research in experimental engineering physics. I took my mentor's advice and joined UC San Diego in 1966 as an assistant professor.

*How did AMES get started?*

Originally, AMES stood for Aeronautical and Mechanical Engineering Sciences. Its founding chair was professor Sol Penner. However, in the late 1960s, the department changed its name to Applied Mathematics and Engineering Sciences, not only to adapt to the changes in the real world, but also to reflect more of its founding vision for providing an interdisciplinary engineering science education. As years passed, AMES continually adapted to the progressive changes that emerged with the times. AMES was truly the umbrella of UC San Diego's engineering program from which our various engineering departments emerged.

*What do you remember about the creation of Revelle's general education requirements?*

I witnessed the strong insistence from UC San Diego science faculty on a strong general education curriculum that included the humanities sequence. This followed the founders' desire for the undergraduate science and engineering education to be embedded in the liberal arts.

**Marsha Penner, '68**  
Revelle College Charter Class

A San Diego native, Marsha Penner joined Revelle College in 1964 as one of 180 charter undergraduate students—all freshmen. She graduated from UC San Diego in 1968 with a degree in philosophy and minor in math/physics. In 1972, she obtained a second bachelor's degree in computer science from UC San Diego. Penner's career has included working as a fortran programmer in the Center for Astrophysics and Space Sciences at the Department of Physics, serving as a scientific analyst and systems administrator at Photon Research Associates in San Diego, and a position as government property administrator at Raytheon.

Penner described to current Revelle undergraduate Melissa Patel what it was like to be one of the first undergraduates to live and learn at Revelle College.

*How did you feel about the general education requirements?*

I thought it was a wonderful idea, and still do. A renaissance type of education is a great way to provide a quality education. It allows students to develop a broad background from which it is possible to expand in any direction. An important part of a renaissance education is languages. I remember most of the students hated the Revelle language requirement, but I think it was very important because it expands our exposure and ways of thinking to include other cultures and their ways of thinking.

*Why did you decide to major in philosophy and minor in math/physics?*

For our first two years, students were not allowed to declare a major and just had to take all the lower division breadth requirements. I did well in math in high school and thought I would be a math major, until I experienced freshmen calculus classes. So in my junior year, I switched to a philosophy major because I felt it would be part of a good education since it teaches you how to think and analyze. Since we were also required to declare a non-contiguous minor, I chose math/physics because I still really liked those subjects.

*How connected did you feel having a class of 180 students?*

I felt highly connected to all 180 of us. There were so few of us that it was like a small town or extended family; we pretty much knew everyone. Also, the connection was enhanced because we all had to take the same classes and classrooms were small. It was important enough to me that I thought we should be documenting our first year at UC San Diego, so although I had no previous experience, I became co-editor of the first yearbook (The Trident) and we got a little staff together and took pictures of everything we could think of, including all 180 of us.

*Where did you have your classes?*

The only buildings then were called Building B (now Urey Hall,) Building C (now Mayer Hall,) and Building D (now Bonner Hall,) and we had classes in all of them. We also had classes in the Quonset Huts at Camp Matthews (where some of the students also lived) and eventually in the Humanities Library Building

(now Galbraith Hall.) The one-story annex to Urey Hall held the Science and Engineering Library where we first spent a lot of time studying, and then later we did a lot of studying in the Humanities Library.

*Where did you live as a student?*

In my senior year I lived in the dorms, which were called the “mud huts” at that time because of their color and texture. I lived in Discovery Hall and the suites were so well designed, with our rooms surrounding a central living space and an adjacent bathroom, that it was both private and social.

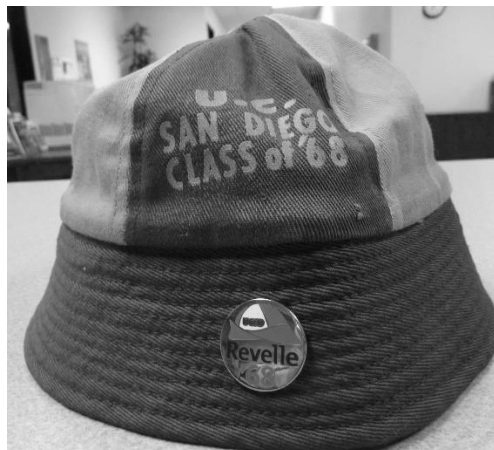
*What was your most memorable experience at UC San Diego?*

Registration day was one of the most memorable. We signed up for our classes at a long table in front of Urey Hall, got our freshmen beanies and name tags and met other classmates, faculty and staff. It was like the beginning of the beginning, the first celebration of UC San Diego. There was a band playing and a barbeque and it was very warm and pleasant to be there. It was also very exciting to be a part of that opportunity to start something new and big and excellent.

Of course, another most memorable experience was the Watermelon Drop that first year after our physics class final exam. Our professor, Robert Swanson, had taken the suggestion of a couple of students who had just returned from the beach with a leftover watermelon, and put the problem to us to solve. So we decided to demonstrate this problem after selecting a Watermelon Queen. Afterward, melons were provided for all to eat.

I also recall how we formed a student government and voted for the school mascot from among several suggestions by the students. Triton was chosen way back then probably because he is the Greek god of the sea, and we are so close to the ocean. It’s really gratifying to see some of the traditions we established are still here.

In truth, I think more fondly about this first year at UC San Diego than I do about any other single year of my life. It has been such a pleasure to have had the rare opportunity to be a part of a new and great beginning, both as a pioneer and guinea pig.



**Clyde Ostler, '68**  
Revelle College Charter Class

Clyde Ostler grew up in Lakeside and went to El Capitan High School in East County. Along with his high school friend Jim Carroll, Ostler was one of the first undergraduates admitted to UC San Diego. He majored in math and philosophy, and later earned an MBA from the University of Chicago. At a time when the key industries in San Diego were the Navy, tourism and agriculture, Ostler took a job in San Francisco with Wells Fargo, where he has held various positions over a 40-year career. Ostler remains engaged with the campus; he served as commencement speaker at Revelle during the college's 25th anniversary and serves on the Director's Council for Scripps Institution of Oceanography. Three of Ostler's children attended UC San Diego.

Ostler spoke with current Revelle undergraduate Alexander Chung about his experience as a member of the charter class.

*What was the reason for requiring proficiency in a foreign language prior to graduation? Which languages could be used?*

There was no limitation on which language could be used—it could be Croatian, German, French, Russian, etc.

*What did engineering students do with no school of engineering?*

All of the engineering students studied aerospace engineering with a curriculum designed by the Department of Aeronautical and Mechanical Engineering Sciences. Courses for the major included physics, chemistry and advanced mathematics, in addition to the Revelle requirements (which included a non-contiguous minor.)

*Why did you decide to attend UC San Diego?*

In those days, kids went to schools nearest to home. We didn't think too much about requirements. There weren't many options: Cal Western, University of San Diego (which was small) and San Diego State University. There was also a large system of two-year junior colleges that were brand new. I came to UC San Diego because of the beach.

*What was unexpected?*

I didn't have many expectations. The charter class was supposed to set the traditions, but it did not work out that way. Many students left, but the growth of the campus was explosive. The influence of the first class was minimal. I give a lot of credit to UC San Diego for the development of San Diego.

*What is one of your favorite memories of Revelle College?*

I often say the Watermelon Drop was my favorite memory. Also, intramural sports and the beach were very important. Every event took place at the beach.

*How was life after graduation?*

My Revelle education served me very well. I assumed that I would be an academic. During my senior year, I applied to many universities for a Ph.D. in math. At the last minute, I decided not to be a mathematician. Instead, I ended up going to the University of Chicago for the business school's Ph.D. program with a three-year fellowship. I didn't know much about business, but did well. I did not finish the doctoral program, but went to work for a bank in San Diego and had a great career. UC San Diego transformed my life. I do a lot of volunteer work at the school, including at Scripps Institution of Oceanography.

The UC San Diego education is phenomenal for first generation kids. I am proud of the fact that I attended Revelle, and would hate to see the requirements diluted. The humanities sequence gave me a well-rounded education.



Erik Jepsen/UC San Diego Publications

***Revelle College, UC San Diego***

***Where sciences, arts, and humanities join to inspire and  
educate Renaissance men and women***

